

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown directly below. This listing of claims will replace all prior versions, and listings, of claims in the application.

1.-53. (Canceled)

54. (Currently Amended) A viscosified subterranean treatment fluid that comprises:
an aqueous-based component; and
a viscosifying agent that comprises a polymersome.

55. (Original) The viscosified treatment fluid of claim 54 wherein the polymersome comprises a block copolymer that comprises a hydrophilic block and a hydrophobic block.

56. (Original) The viscosified treatment fluid of claim 55 wherein the block copolymer has a hydrophilic mass fraction in the range of from about 20% to about 45% by weight of the block copolymer.

57. (Original) The viscosified treatment fluid of claim 55 wherein the hydrophilic block comprises poly(acrylic acid), poly(ethylene oxide), poly(methacrylic acid), poly(2-acrylamido, 2-methyl propane sulfonic acid), poly(2-dimethylaminoethyl methacrylate), or poly(acrylamide).

58. (Original) The viscosified treatment fluid of claim 55 wherein the hydrophobic block comprises poly(butadiene), poly(styrene), poly(isoprene), poly(ethylene), poly(ethylene propylene), or poly(ethylene butene).

59. (Original) The viscosified treatment fluid of claim 54 wherein the viscosifying agent is added to the viscosified treatment fluid in an amount such that the polymersome is included in the viscosified treatment fluid in an amount in the range of from about 0.01% to about 1.0% by weight of the viscosified treatment fluid.

60. (Original) The viscosified treatment fluid of claim 54 wherein the viscosified treatment fluid is a drilling fluid, a drill-in fluid, a fracturing fluid, or a gravel pack fluid.

61. (Original) The viscosified treatment fluid of claim 54 wherein the viscosified treatment fluid further comprises particulates.

62. (Original) The viscosified treatment fluid of claim 54 wherein the viscosified treatment fluid further comprises a buffer.

63. (Original) The viscosified treatment fluid of claim 54 wherein the treatment fluid further comprises an encapsulated pH-adjusting agent, a base-releasing material, or an acid-releasing material.

64. (Original) The viscosified treatment fluid of claim 63 wherein the acid-releasing material comprises an orthoester; a poly(ortho ester), a lactide; a poly(lactide); a glycolide; a poly(glycolide); a substituted lactide; a substantially water insoluble anhydride; or a poly(anhydride).

65. (Original) The viscosified treatment fluid of claim 63 wherein the base-releasing material comprises urea, ulexite, or a blend thereof.

66. (Original) The viscosified treatment fluid of claim 63 wherein the pH-adjusting agent comprises sodium hydroxide, potassium hydroxide, lithium hydroxide, sodium carbonate, potassium carbonate, fumaric acid, formic acid, acetic acid, acetic anhydride, hydrochloric acid, hydrofluoric acid, hydroxyfluoboric acid, polyaspartic acid, or polysuccinimide.

67. (Original) A fracturing fluid that comprises:

an aqueous-based component; and
a viscosifying agent that comprises a polymersome.

68. (Original) The fracturing fluid of claim 67 wherein the polymersome comprises a block copolymer that comprises a hydrophilic block and a hydrophobic block.

69. (Original) The fracturing fluid of claim 68 wherein the block copolymer has a hydrophilic mass fraction in the range of from about 20% to about 45% by weight of the block copolymer.

70. (Original) The fracturing fluid of claim 68 wherein the hydrophilic block comprises poly(acrylic acid), poly(ethylene oxide), poly(methacrylic acid), poly(2-acrylamido, 2-methyl propane sulfonic acid), poly(2-dimethylaminoethyl methacrylate), or poly(acrylamide).

71. (Original) The fracturing fluid of claim 68 wherein the hydrophobic block comprises poly(butadiene), poly(styrene), poly(isoprene), poly(ethylene), poly(ethylene propylene), or poly(ethylene butene).

72. (Original) The fracturing fluid of claim 67 wherein the viscosifying agent is added to the fracturing fluid in an amount such that the polymersome is included in the fracturing fluid in an amount in the range of from about 0.01% to about 1.0% by weight of the fracturing fluid.

73. (Original) The fracturing fluid of claim 67 wherein the fracturing fluid further comprises particulates.

74. (Original) The fracturing fluid of claim 67 wherein the fracturing fluid further comprises a buffer.

75. (Original) The fracturing fluid of claim 67 wherein the fracturing fluid further comprises an encapsulated pH-adjusting agent, a base-releasing material, or an acid-releasing material.

76. (Currently Amended) A gravel pack fluid that comprises:

an aqueous-based component,
a viscosifying agent that comprises a polymersome; and
particulates suitable for forming a gravel pack.

77. (Original) The gravel pack fluid of claim 76 wherein the polymersome comprises a block copolymer that comprises a hydrophilic block and a hydrophobic block.

78. (Original) The gravel pack fluid of claim 77 wherein the block copolymer has a hydrophilic mass fraction in the range of from about 20% to about 45% by weight of the block copolymer.

79. (Original) The gravel pack fluid of claim 77 wherein the hydrophilic block comprises poly(acrylic acid), poly(ethylene oxide), poly(methacrylic acid), poly(2-acrylamido, 2-methyl propane sulfonic acid), poly(2-dimethylaminoethyl methacrylate), or poly(acrylamide).

80. (Original) The gravel pack fluid of claim 77 wherein the hydrophobic block comprises poly(butadiene), poly(styrene), poly(isoprene), poly(ethylene), poly(ethylene propylene), or poly(ethylene butene).

81. (Original) The gravel pack fluid of claim 76 wherein the viscosifying agent is added to the gravel pack fluid in an amount such that the polymersome is included in the gravel pack fluid in an amount in the range of from about 0.01% to about 1.0% by weight of the gravel pack fluid.

82. (Original) The gravel pack fluid of claim 76 wherein the particulates comprise gravel.

83. (Original) The gravel pack fluid of claim 76 wherein the gravel pack fluid further comprises a buffer.

84. (Original) The gravel pack fluid of claim 76 wherein the gravel pack fluid further comprises an encapsulated pH-adjusting agent, a base-releasing material, or an acid-releasing material.

85.-93. (Canceled)